

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION: James A. Russell, et al.

GROUP ART UNIT: Unassigned

SERIAL NUMBER: 10/549,804

EXAMINER: Unassigned

FILED: September 19, 2005

FOR: PLASMINOGEN ACTIVATOR INHIBITOR-1 (PAI-1) HAPLOTYPES USEFUL AS INDICATORS OF PATIENT OUTCOME

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97

Mail Stop Amendment  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The Applicant(s) wish to make of record the references listed on the attached PTO/ SB/08. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR § 1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending applications or issued patents which may be related to the present application. A copy of the patent(s) is attached along with PTO/ SB/08.
- ☐ A check is attached in the amount required under 37 CFR § 1.17(p).

CERTIFICATION

The undersigned certifies that

- ☐ each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this statement.

PETITION

- ☐ Applicant(s) hereby request consideration of the attached information. A check is attached in the amount of the Petition fee required under 37 CFR § 1.17(i)(1).

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account No. 50-0911. A duplicate copy of this sheet is enclosed.

Respectfully submitted,  
 MCKENNA LONG & ALDRIDGE LLP

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 Date: January 24, 2006

DECLARATION UNDER 37 C.F.R. 1.97

7/1/02 5:00P

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

3

**Complete if Known**

Application Number	549,804
Filing Date	September 19, 2005
First Named Inventor	WALLEY, Keith R.
Art Unit	TBA
Examiner Name	TBA
Attorney Docket Number	28903.0003 (SBF-3)

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	US 5,128,247			
	A2	US 5,130,423			
	A3	US 5,674,743			
	A4	US 5,945,515			
	A5	US 5,989,431			
	A6	US 6,025,136			
	A7	US 6,270,961			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	WO 01/81631				
	B2	WO 98/53098				

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Cited <sup>1</sup>	T <sup>2</sup>
	C1	American College of Chest Physicians/Society of Critical Care Medicine Consensus Conference: definitions for sepsis and organ failure and guidelines for the use of innovative therapies in sepsis (Critical Care Medicine (1992) 20(6):864-874.	
	C2	Analects, (1994) Vol. 22, No. 4 Pharmacia Biotech.	
	C3	Anonymous, Ventilation with lower tidal volumes as compared with traditional tidal volumes for acute lung injury and the acute respiratory distress syndrome. New England Journal of Medicine (2000) 342(18):1301-8.	
	C4	Anvari, A., et al. PAI-1 4G/5G polymorphism and sudden cardiac death in patients with coronary artery disease. Thrombosis Research (2001) 103(2):103-7.	
	C5	Axelrod, V.D., et al. Specific terminal of RNA polymerase synthesis as a method of RNA and DNA sequencing. NuclAcids Res (1978) 5(a): 3549-3563	

Examiner  
SignatureDate  
Considered

DC:50377013.1

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 2

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**Complete if Known**

Application Number 549,804

Filing Date September 19, 2005

First Named Inventor WALLEY, Keith R.

Art Unit TBA

Examiner Name TBA

Attorney Docket Number 28903.0003 (SBF-3)

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS (...cont.)**

Examiner Initials *	Cite No. <sup>1</sup>	Document Cited	T
	C6	Benza, Raymond L. "Association of a gene polymorphism for PAI-1 with primary pulmonary hypertension" American Heart Association Cardiopulmonary and Critical Care Council Newsletter, 23(1), Spring 2002, p. 7-8.	
	C7	Bernard, G.R., et al. The effects of ibuprofen on the physiology and survival of patients with sepsis. New England Journal of Medicine (1997) 336(13):912-8.	
	C8	Bernard, G.R., et al. Efficacy and safety of recombinant human activated protein c for severe sepsis. New England Journal of Medicine (2001) 344(10):699-709.	
	C9	Binder, B.R., et al. Plasminogen activator inhibitor 1: physiological and pathophysiological roles. News in Physiological Sciences (2002) 17:56-61.	
	C10	Boekholdt, S.M., et al. Genetic variation in coagulation and fibrinolytic proteins and their relation with acute myocardial infarction. Circulation (2001) 104(25):3063-8.	
	C11	Catchpoole, DR, Lock, RB. "The potential tumour suppressor role for caspase-9 (CASP9) in the childhood malignancy, neuroblastoma", Eur J Cancer (2001) 37(17):2217-21.	
	C12	Dawson, S.J., et al. The two allele sequences of a common polymorphism in the promoter of the plasminogen activator inhibitor-1 (PAI-1) gene respond differently to interleukin-1 in HepG2 cells. Journal of Biological Chemistry (1993) 268(15):10739-45.	
	C13	Dawson, S., et al. Genetic variation at the plasminogen activator inhibitor-1 locus is associated with altered levels of plasma plasminogen activator inhibitor-1 activity. Arteriosclerosis & Thrombosis (1991) 11(1):183-90.	
	C14	Endler, G., et al. The 4G/5G genotype at nucleotide position -675 in the promoter region of the plasminogen activator inhibitor 1 (PAI-1) gene is less frequent in young patients with minor stroke than in controls. British Journal of Haematology (2000) 110(2):469-71.	
	C15	Eriksson, P., et al. Allele-specific increase in basal transcription of the plasminogen-activator inhibitor 1 gene is associated with myocardial infarction. PNAS (1995) 92(6):1851-5.	
	C16	Fourrier, F., et al. Septic shock, multiple organ failure, and disseminated intravascular coagulation: compared patterns of antithrombin III, protein c, and protein s deficiencies. Chest (1992) 101(3):816-23.	
	C17	Freeman, B.D., et al. Template-directed dye-terminator incorporation with fluorescence polarization detection for analysis of single nucleotide polymorphisms implicated in sepsis. J Mol Diagnostics (2002) 4(4):209-215.	
	C18	Gaillard, MC, Mahadeva, R., Lomas DA. "Identification of DNA polymorphisms associated with the V type alpha1-antitrypsin gene", Biochim Biophys Acta (1999) 1444(20):166-70.	
	C19	Gardemann, A., et al. The 4G/5G genotype of the plasminogen activator inhibitor 4G/5G gene polymorphism is associated with coronary atherosclerosis in patients at high risk for this disease. Thrombosis & Haemostasis (1999) 82(3):1121-6.	
	C20	Haralambous, E., et al. Role of functional plasminogen-activator-inhibitor-1 4G/5G promoter polymorphism in susceptibility, severity, and outcome of meningococcal disease in caucasian children. Crit Care Med (2003) 31(12):2788-93.	
	C21	Hermans, P.W., et al. 4G/5G promoter polymorphism in the plasminogen-activator-inhibitor-1 gene and outcome of meningococcal disease. Lancet (1999) 354(9178):556-60.	
	C22	Hesseltvik, J.F., et al. Coagulation, fibrinolysis, and kallikrein systems in sepsis: relation to outcome. Critical Care Medicine (1989) 17(8):724-33.	
	C23	Hindorf, L.A., et al. The association of PAI-1 promoter RG/5G insertion/deletion polymorphism with myocardial infarction and stroke in young women. Journal of Cardiovascular Risk (2002) 9(2):131-7.	
	C24	Hooper, W.C., et al. The role of the t-Pa I/D and PAI-1 4G/5G polymorphisms in african-american adults with a diagnosis of myocardial infarction or venous thromboembolism. Thrombosis Research (2000) 99(3):223-30.	
	C25	Johnson, K., et al. Potential mechanisms for a proinflammatory vascular cytokine response to coagulation activation. Journal of Immunology (1998) 160(10):5130-5.	
	C26	Johnson, K., et al. The proinflammatory cytokine response to coagulation and endotoxin in whole blood. Blood (1996) 87(12):5051-60.	

Examiner  
SignatureDate  
Considered

DC:50377013.1

Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	549,804
		Filing Date	September 19, 2005
		First Named Inventor	WALLEY, Keith RIAN 2, 4 2006
		Art Unit	TBA
		Examiner Name	TBA
Sheet 3 of 3	Attorney Docket Number	28903.0003 (SBF-3)	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS (...cont.)			
Examiner Initials *	Cite No. <sup>1</sup>	Document Cited	T
	C27	Jones, K., et al. The influence of 4G/5G polymorphism in the plasminogen activator inhibitor-1 gene promoter on the incidence, growth and operative risk of abdominal aortic aneurysm. European Journal of Vascular & Endovascular Surgery (2002) 23(5):421-5.	
	C28	Lopez-Aguirre, Y., et al. Endothelial cell and hemostatic activation in relation to cytokines in patients with sepsis. Thrombosis Research (1999) 94(2):95-101.	
	C29	Lorente, J.A., et al. Time course of hemostatic abnormalities in sepsis and its relation to outcome. Chest (1993) 103(5):1536-42.	
	C30	Menges, T., et al. Plasminogen-activator-inhibitor-1 4G/5G promoter polymorphism and prognosis of severely injured patients. Lancet (2001) 357(9262):1096-7.	
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	C33	Mikkelsson, J., et al. Plasminogen activator inhibitor-1 (PAI-1) 4G/5G polymorphism coronary thrombosis, and myocardial infarction in middle-aged Finnish men who died suddenly. Thrombosis & Haemostasis (2000) 84(1):78-82.	
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	C36	Phillips, J., et al. Fibrinolysis and coagulation in patients with infectious disease and sepsis. Thromb Haemost (1991) 65(3):291-5.	
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	C38	Rieder, M.J., et al. Accession AF386492 Vol. 2001: Seattle SNPs. NHLBI Program for Genomic Applications, UW-FHCRC, Seattle, WA (2001).	
	C39	Roest, M., et al. Plasminogen activator inhibitor 4G polymorphism is associated with decreased risk of cerebrovascular mortality in older women. Circulation (2000) 101(1):67-70.	
	C40	Russell, J.A. Genetics of Coagulation factors in acute lung injury. Critical Care Medicine (2003) 31(4):S243-S24.	
	C41	Russell, J.A., et al. Changing pattern of organ dysfunction in early human sepsis is related to mortality. Critical Care Medicine (2000) 28(10):3405-11.	
	C42	Segui, R., et al. PAI-1 promoter 4G/5G genotype as an additional risk factor for venous thrombosis in subjects with genetic thrombophilic defects. British Journal of Haematology (2000) 111(1):122-8.	
	C43	Suffredini, A.F., et al. Promotion and subsequent inhibition of plasminogen activation after administration of intravenous endotoxin to normal subjects. New England Journal of Medicine (1989) 320(18):1165-72.	
	C44	Tabrizi, A.R., et al. Genetic markers in sepsis. J Am Coll Surg (2001) 192(1):106-117.	
	C45	Vincent, et al. Scoring systems for assessing organ dysfunction and survival. Critical Care Clinics (2000) 16:353-366.	
	C46	Westendorp, R.G., et al. Variation in plasminogen-activator-inhibitor-1 gene and risk of meningococcal septic shock. Lancet (1999) 354(9178):561-3.	

Examiner Signature	Date Considered
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